

**REMARKS**

This paper is responsive to the Non-Final Office Action dated March 18, 2003, having a shortened statutory period expiring on June 18, 2003, extended to July 18, 2003, wherein:

Claims 1-59 were pending in the application;

Claims 1-26 were withdrawn from consideration; and

Claims 27-59 were rejected.

Claims 27 and 53 have been amended; Claims 1-26, 31, 37, 44, and 50 have been canceled without prejudice or disclaimer of the subject matter recited therein; and no claims have been added by the current amendment.

Accordingly, claims 27-30, 32-36, 68-43, 45-49, and 51-59 remain currently pending in the present application.

**Election/Restriction**

In the present Office Action, Applicants' claims 1-26 were restricted for examination purposes. Applicants have canceled claims 1-26 without prejudice or disclaimer of the subject matter recited therein in confirmation of the provisional election of claims 27-59 (Group III) made via telephone interview on March 6, 2003. Applicants reserve the right, for example, in a continuing or divisional application, to pursue non-elected claims 1-13 (Group I) and/or 14-26 (Group II).

**Objection to the Specification**

In the present Office Action, Applicants' title was objected to as being not descriptive. Applicants have amended the title herein as per the Examiner's suggestion and respectfully submit that the Examiner's objection is overcome.

Rejection of Claims under 35 U.S.C. §112

In the present Office Action, claims 31, 37, 44, 50 and 53 were rejected under 35 U.S.C. §112, second paragraph. Applicants' claims 31 and 44 and 37 and 50 were rejected as failing to adequately define the terms, "matrix F" and "matrix A", respectively. Applicants' claim 53 was rejected as failing to provide adequate antecedent basis for the limitation "coupled to said processor".

While not conceding that Applicants' claims do not particularly point out and distinctly claim the subject matter which Applicants regard as their invention, but instead to expedite prosecution, Applicants have elected to cancel claims 31, 37, 44, and 50 without prejudice or disclaimer of the subject matter recited therein. Accordingly, Applicants submit that all rejections, including those under 35 U.S.C. §112, second paragraph are rendered moot with respect to the canceled claims. Applicants have additionally amended claim 53 as per the Examiner's suggestion and respectfully submit that the Examiner's rejection is overcome.

Rejection of Claims under 35 U.S.C. §102

In the present Office Action, claims 40-42 and 44-51 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,754,543, issued to Seid (hereinafter "**Seid**"). While not conceding that any of the Examiner's cited references qualify as prior art, but instead to expedite prosecution, Applicants have elected to respectfully disagree and traverse the rejection as follows. Applicants reserve the right, for example, in a continuing application, to establish that one or more of the Examiner's cited references do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed.

Applicants respectfully submit that **Seid** fails to teach, show, or suggest a computer program product encoded in a computer readable medium, said computer program product comprising:

a first set of instructions, executable on a computer system, configured to identify pairs of said network elements as being in a first set of network element pairs...

a second set of instructions, executable on said computer system, configured to generate a first matrix from said first set of network element pairs, wherein...said first matrix comprises independent rows and non-independent rows;

a third set of instructions, executable on said computer system, configured to form a second set of network element pairs...

a fourth set of instructions, executable on said computer system, configured to measure a measured network performance metric between a first network element and a second network element of each network element pair in said second set of network element pairs; and

a fifth set of instructions, executable on said computer system, configured to compute a computed network performance metric between a first network element and a second network element of a remaining network element pair in said first set of network element pairs using at least one of said measured network performance metrics.

as required by independent claim 40 (emphasis supplied) and generally required by Applicants' independent claims 27 and 53.

With regard to Applicants' claim 40, the present Office Action states, "Seid teaches...22. a first set of instructions...configured to identify pairs of the network elements as being in a first set of network element pairs...(Figures 1, 3, 4, 5, 6a, 6b, 7 & 8; column 2, lines 49-59; column 6, line 14 to column 7, line 8; claim 1); 23. a second set of instructions...configured to generate a first matrix from the first set of network element pairs, wherein...the first matrix comprises independent rows and non-independent rows (Fig. 2; column 2, lines 49-59; column 6, lines 14 to column 7, line 8; claim 1); 24. a third set of instructions...configured to form a second set of network element pairs...(Figures 1, 3, 4, 5, 6a, 6b, 7 & 8; column 3, lines 20-45; column 3, lines 20-45; column 7, line 18 to column 8, line 56; claim 1); 25. a fourth set of instructions...configured to measure a measured network performance metric...(column 2, lines 49-63; column 11, lines 1-61; claim 1); and 26. a fifth set of instructions...configured to compute a computed network performance metric...using at least one of said measured network performance metrics...(column 2, lines 60-63; column 11, lines 1-61; claims 1 & 2)." Applicants respectfully disagree.

Applicants respectfully request that the Examiner cite with specificity those portions of the references which he believes teach, show, or suggest the elements of Applicants' claim as required by 37 C.F.R. §1.104(c)(2).

With regard to, “a first set of instructions, executable on a computer system, configured to identify pairs of said network elements as being in a first set of network element pairs” Applicants can find nothing within the numerous cited portions of *Seid* which teaches, shows, or suggests instructions configured to identify pairs of said network elements as claimed. Applicants respectfully request that the Examiner cite with specificity those portions of *Seid* which he believes teach, show, or suggest the described element(s) of Applicants’ claim as required by 37 C.F.R. §1.104(c)(2). The cited portions of *Seid* teach, “defining cost functions”, “establishing a criterion for prioritizing cost functions” and the establishment of a connectivity matrix, “having ordered pairs which correspond to the priority established by the criterion.” Applicants respectfully submit that the described “ordered pairs” are pairs of cost functions rather than pairs of network elements as required by Applicants’ claim. Moreover, Applicants respectfully submit that the cited portions of *Seid* fail to teach, show, or suggest, “identifying” as claimed.

With regard to, “a second set of instructions, executable on said computer system, configured to generate a first matrix from said first set of network element pairs, wherein...said first matrix comprises independent rows and non-independent rows” Applicants can find nothing within the Examiner’s cited portions of *Seid* which may be construed as teaching, showing, or suggesting a first matrix which comprises, “independent rows and non-independent rows” as claimed.

Figure 2 of *Seid* is, “a logic flow diagram of a shortest path determination for the virtual private network of Fig. 1 utilizing connectivity matrix-based multi-cost routing” in which, “a connectivity matrix for the network is established, in a step 208, having ordered pairs which correspond to the priority established by the criterion.” Applicants can find nothing within *Seid*’s Figure 2 which describes or shows independent or non-independent rows of a matrix or a row attribute other than source node. The remaining portions of *Seid* cited as teaching the claimed instructions configured to generate a first matrix, (column 2, lines 49-59; column 6, lines 14 to column 7, line 8; claim 1), similarly fail to teach, show, or suggest “independent rows and non-independent rows” as claimed. Rather, the described portions of *Seid* teach at most the establishment of a connectivity matrix and its use to make a shortest path matrix determination (see, e.g., Column 2, Lines 49-59).

With regard to, “a third set of instructions, executable on said computer system, configured to form a second set of network element pairs” Applicants can find nothing within the numerous cited portions of *Seid* which teaches, shows, or suggests instructions configured to form a second set of network element pairs as claimed. Applicants respectfully request that the Examiner cite with specificity those portions of *Seid* which he believes teach, show, or suggest the described element(s) of Applicants’ claim as required by 37 C.F.R. §1.104(c)(2). Applicants submit that while the cited portions of *Seid* illustrate virtual private networks and describe the routing from a source node to a destination node, they fail to teach, show, or suggest the formation of a second set of network element pairs as required by Applicants’ claim.

Moreover, Applicants respectfully submit that, viewing Applicants’ claim as a whole as required, the cited portions of *Seid* further fail to teach, show, or suggest that, “said second set of network element pairs contains independent network element pairs in said first set of network element pairs, and each one of said independent pairs of network element corresponds to a one of said independent rows of said first matrix.” Applicants submit that, as it has been clearly shown that *Seid* fails to teach independent rows of a first matrix, the reference is incapable of teaching, showing, or suggesting that, “each one of said independent pairs of network element corresponds to a one of said independent rows of said first matrix” as claimed.

With regard to, “a fourth set of instructions...configured to measure a measured network performance metric” and “a fifth set of instructions...configured to compute a computed network performance metric...using at least one of said measured network performance metrics” Applicants again can find nothing within the cumulatively cited portions which teaches, shows, or suggests the described limitation(s). Applicants again respectfully request that the Examiner cite with specificity those portions of *Seid* which he believes teach, show, or suggest the described element(s) of Applicants’ claim as required by 37 C.F.R. §1.104(c)(2).

While the Examiner’s cumulatively cited portions of *Seid* teach the establishment of “a connectivity matrix...including ordered n-tuples of cost factors” and further “defining cost

functions”, “establishing a criterion for prioritizing cost functions”, and making “a shortest path matrix determination” Applicants submit that *Seid* does not distinguish between “a measured network performance metric” and “a computed network performance metric” and moreover that none of the referenced teachings are equivalent to measuring or computing as claimed.

*Rejection of Claims under 35 U.S.C. §103*

In the present Office Action, claims 27-39, 43, and 52-59 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,151,324, issued to Belser et al., (hereinafter “*Belser*”) in view of *Seid*. While not conceding that any of the Examiner’s cited references qualify as prior art, but instead to expedite prosecution, Applicants have elected to respectfully disagree and traverse the rejection as follows. Applicants reserve the right, for example, in a continuing application, to establish that one or more of the Examiner’s cited references do not qualify as prior art as to an invention embodiment previously, currently, or subsequently claimed.

With regard to Applicants’ independent claim 27, *Belser* is referenced as teaching, “a processor; a network interface, coupled to said processor and to a network...[and a] computer readable medium coupled to said processor.” The Examiner further states that, “*Belser* does not teach computer code, encoded in the computer readable medium...” and references *Seid* as teaching the remaining elements of Applicants’ claim as described similarly herein with respect to the Examiner’s rejection of claim 40 under 35 U.S.C. §102(b). Consequently, Applicants respectfully submit that the remarks made herein with respect to the Examiner’s rejection of Applicants’ claim 40 are similarly applicable to the present rejection of Applicants’ claim 27 under 35 U.S.C. §103(a).

In addition the portions of *Seid* previously cited with respect to Applicants’ claim 40, in the present Office Action the Examiner has cited Column 3, Lines 6-45 of *Seid* as teaching, “the first matrix comprises independent rows and non-independent rows” and Column 2, Lines 60-65 of *Seid* as teaching, “the second set of network element pairs contains independent network element pairs in the first set of network element pairs.” Applicants note this

discrepancy from the portions of *Seid* which were cited in support of the Examiner's rejection of claim 40 under 35 U.S.C. §102(b) and respectfully disagree.

Applicants can find nothing within the additionally cited portions of *Seid* which teaches, shows, or suggests the described limitation(s). Applicants again respectfully request that the Examiner cite with specificity those portions of *Seid* which he believes teach, show, or suggest the described element(s) of Applicants' claim as required by 37 C.F.R. §1.104(c)(2). At Column 3, Lines 6-45, *Seid* teaches, "the determination of primary paths and secondary paths between source nodes and destination nodes" and a routing method which includes the step of, "establishing a criterion C, for routing from a source node to a destination node." Applicants can find no teaching, showing, or suggestion however of "independent rows and non-independent rows" within the cited portion of *Seid*. Similarly at Column 2, Lines 60-65 of *Seid*, it is taught that,

In further accord with the present invention, the shortest path matrix is determined by applying Floyd's Algorithm or Dijkstra's Algorithm to a connectivity matrix using the generally additive operator. In still further accord with the present invention, when links within a network support various functionality, a mask of a required functionality may be used to define a cost function for a given shortest path matrix determination.

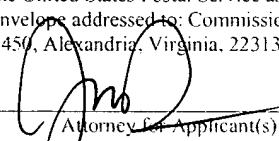
Applicants are uncertain how the application of an algorithm to a connectivity matrix using a generally additive operator as described teaches the formation of "a second set of network element pairs, wherein said second set of network element pairs contains independent network element pairs in said first set of network element pairs" as claimed. Clarification is respectfully requested.

Applicants claims 27 and 53 each contain one or more limitations or element substantially similar to those of claim 40 and are therefore allowable over the Examiner's cited references for at least the reasons stated for the allowability of that claim as well as the reasons stated above. Applicants' claims 41-52 depend directly or indirectly from claim 40 and are therefore allowable for at least those reasons stated for the allowability of that claim. Applicants' claims 28-39 depend directly or indirectly from claim 27 and are therefore allowable for at least those reasons stated for the allowability of that claim. Applicants' claims

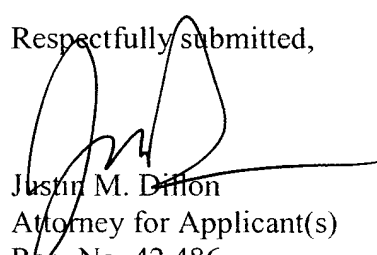
54-59 depend directly or indirectly from claim 53 and are therefore allowable for at least those reasons stated for the allowability of that claim.

**CONCLUSION**

Applicant(s) submit that all claims are now in condition for allowance, and an early notice to that effect is earnestly solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is requested to telephone the undersigned.

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 _____ Attorney for Applicant(s)	<u>7-18-03</u> _____ Date of Signature

Respectfully submitted,

  
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